

## INTERNATIONAL SEARCH REPORT

International Application No  
PCT/EP2004/004314

### A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 B22D2/00 B22D11/18 B22D37/00 G01N27/74 G01N33/20  
C21C5/46

**According to International Patent Classification (IPC) or to both national classification and IPC**

### B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 B22D G01N C21C

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the International search (name of data base and, where practical, search terms used)

EPO-Internal, PAJ, WPI Data

### C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	PATENT ABSTRACTS OF JAPAN vol. 1998, no. 05, 30 April 1998 (1998-04-30) - & JP 10 005958 A (NIPPON STEEL CORP), 13 January 1998 (1998-01-13) abstract	1, 15
A	US 4 816 758 A (THEISSEN WOLFGANG ET AL) 28 March 1989 (1989-03-28) abstract column 3 - column 5; figures 1-5	1, 15
A	JP 54 119336 A (KAWASAKI STEEL CO; EDDIO CORP) 17 September 1979 (1979-09-17) figures 1-4	1, 15
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☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

\* Special categories of cited documents :

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier document but published on or after the international filing date
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- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

- "T"** later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- "X"** document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- "Y"** document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- "Z"** document member of the same patent family

Date of the actual completion of the international search

12 July 2004

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20/07/2004

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	JP 54 110932 A (KAWASAKI STEEL CO) 30 August 1979 (1979-08-30) figures 1,2	1,15
A	----- PATENT ABSTRACTS OF JAPAN vol. 1998, no. 01, 30 January 1998 (1998-01-30) & JP 09 236461 A (NIPPON STEEL CORP), 9 September 1997 (1997-09-09) abstract	
A	----- WO 02/36293 A (JALK MATS ;OHLSSON WILLY (SE); CERVANTES MICHEL (SE); KELVESJOE HA) 10 May 2002 (2002-05-10) the whole document -----	

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Information on patent family members

International Application No

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JP 10005958	A	13-01-1998	NONE	
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JP 54119336	A	17-09-1979	JP 1426286 C JP 59016543 B	25-02-1988 16-04-1984
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